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NEWS 2	JAN 02	STN pricing information for 2008 now available
NEWS 3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 5	JAN 28	MARPAT searching enhanced
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NEWS 7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS 9	FEB 08	STN Express, Version 8.3, now available
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NEWS 12	FEB 25	IMSPRODUCT reloaded with enhancements
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NEWS 14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS 15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS 16	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS 17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS 18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS 20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS 21	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS 22	APR 28	IMSRESEARCH reloaded with enhancements
NEWS 23	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS 24	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS 25	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS 26	JUN 06	KOREAPAT updated with 41,000 documents
NEWS 27	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS 28	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS 29	JUN 25	CA/CAplus and USPAT databases updated with IPC reclassification data
NEWS 30	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS 31	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional

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                Assistant and BLAST plug-in
 NEWS 33  JUN 30  STN AnaVist enhanced with database content from EPFULL

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              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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=> s (inflammation and ferritin)
L1        3209 (INFLAMMATION AND FERRITIN)

=> s l1 and biliverdin
L2          72 L1 AND BILIVERDIN

=> s l2 and dosage
L3          31 L2 AND DOSAGE

=> s l3 and (dextran)
L4          19 L3 AND (DEXTRAN)

=> s l3 and (sesferoxamine
UNMATCHED LEFT PARENTHESIS 'AND (SESFEROXAM'
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The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s l3 and (desferoxamine)
L5          12 L3 AND (DESFEROXAMINE)

=> s l5 and l4
L6          12 L5 AND L4

=> d l6 ti abs ibib tot

L6   ANSWER 1 OF 12  WPIDS COPYRIGHT 2008       THOMSON REUTERS on STN
TI   Treating inflammation involves determining the level of heme
     oxygenase-1 activity in response to a stimulus; and administering
     anti-inflammatory agent, and composition having carbon monoxide,
     bilirubin, heme oxygenase-1, and/or apoferritin
AN   2008-C63174 [19]    WPIDS
AB   WO 2008008513 A2   UPAB: 20080318
      NOVELTY - Treating inflammation involves determining the
     patient's level of heme oxygenase-1 (HO-1) activity, expression, or
     induction in response to a stimulus, or determining an allele of a
     polymorphism in HO-1 promoter; and administering first pharmaceutical
     composition comprising an anti-inflammatory agent; and a second
     pharmaceutical composition comprising carbon monoxide, HO-1, bilirubin,
     iron dextran, apoferritin (if HO-1 activity, expression or
     induction in response to stimulus is determined to be reduced compared to
     reference standard, or if the HO-1 promoter comprises specified allele).
           DETAILED DESCRIPTION - Treating (M1) inflammation
     involves determining the patient's level of heme oxygenase-1 (HO-1)
     activity, expression, or induction in response to a stimulus, or
     determining an allele of a polymorphism in HO-1 promoter; and
     administering first pharmaceutical composition comprising an
     anti-inflammatory agent; and a second pharmaceutical composition
     comprising carbon monoxide (CO), a CO-releasing compound, HO-1, bilirubin,
     biliverdin, ferritin, iron, desferoxamine,
     salicylaldehyde isonicotinoyl hydrazone, iron dextran, and/or
     apoferritin (if HO-1 activity, expression or induction in response to a
     stimulus is determined to be reduced compared to a reference standard, or
     if the HO-1 promoter comprises a specified allele). An INDEPENDENT CLAIM
     is included for potentiating (M2) the response of a patient to a
     pharmaceutical agent, involving identifying a first pharmaceutical agent
     that is potentiated by a second treatment which induces HO-1 or
     apoferritin or increases the level of expression of HO-1 or apoferritin in
     the patient by administering a second pharmaceutical composition
     comprising HO-1, CO, CO-releasing compound, bilirubin, biliverdin
     , ferritin, iron, desferoxamine, salicylaldehyde
     isonicotinoyl hydrazone, iron dextran, and/or apoferritin;
     administering the first pharmaceutical agent; and allowing the second
     treatment. PHARMACEUTICALS - Preferred Components: The anti-inflammatory
     agent is selected from statins, adenosine, cyclooxygenase inhibitors,
     probucol, steroids, or prostaglandins. In method (M2) the first
     pharmaceutical agent is immunosuppresant.
           ACTIVITY - Antiinflammatory; Antiasthmatic; Respiratory-Gen.;
     Hypotensive; Cardiovascular-Gen.; Vasotropic; Cerebroprotective;
     Antiarteriosclerotic; Cardiant; Nephrotropic; Uropathic; Hepatotropic;
     Virucide; Antiangiogenic; Gastrointestinal-Gen.; Antiarthritic;
     Antirheumatic; Neuroprotective; Dermatological; Immunosuppressive;
     Cytostatic; Vulnerary; Nootropic; Antiparkinsonian; Hemostatic;
     Antibacterial; Analgesic; Gynecological; Endocrine-Gen.; Anti-HIV;
     Antiallergic. The efficacy of heme oxygenase-1 was tested for
     anti-inflammatory effect. Mouse macrophage cell lines were stably
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transfected with either heme oxygenase-1 (HO-I) or empty plasmid (NEO). The resulting cell lines were treated with adenosine (100 muM) or 5'-(N-ethylcarboxamido) adenosine (NECA) (10 muM) 30 minutes prior to stimulation with lipopolysaccharide (LPS) (1 ng/ml). After 4 hours, the supernatant of each group was analyzed for tumor necrosis factor (TNF)-I. Overexpression of HO-1 gave approximately1.5 to 2-fold greater inhibition of TNF-I secretion compared to the vector control. Thus overexpression of HO-1 augmented the effect of the anti-inflammatory agents adenosine and NECA on TNF-I, produced by lipopolysaccharide (LPS) activated macrophages.

MECHANISM OF ACTION - Heme oxygenase 1 stimulator; Apoferritin stimulator. No biological data given.

USE - For treating inflammation (particularly associated with asthma, adult respiratory distress syndrome, interstitial pulmonary fibrosis, pulmonary emboli, chronic obstructive pulmonary disease, primary pulmonary hypertension, chronic pulmonary emphysema, congestive heart failure, peripheral vascular disease, stroke, atherosclerosis, ischemia-reperfusion injury, heart attack, glomerulonephritis, conditions involving inflammation of the kidney, infection of the genitourinary tract, viral hepatitis, toxic hepatitis, cirrhosis, ileus, necrotizing enterocolitis, inflammatory bowel disease, rheumatoid arthritis, multiple sclerosis, systemic lupus erythematosus, cancer, wounds, Alzheimer's disease, Parkinson's disease, graft versus host disease, and hemorrhagic, septic, or anaphylactic shock); inflammation of the heart, respiratory tract, liver, spleen, brain, joint, skin, gastrointestinal tract and/or kidney (claimed), pain, reproductive disorders, e.g. impotence, premature uterine contractions, premature deliveries and menstrual cramps, amoebic dysentery, pneumonia (bacterial or viral), inflammatory states due to immunodeficiency e.g. due to infection with HIV; hypersensitivities; and for treating unwanted angiogenesis.

ADVANTAGE - The second composition induces HO-1 or increasing the level of expression of HO-1; induces apoferritin or increases the level of expression of apoferritin in the patient, and effectively treat inflammation.

ACCESSION NUMBER: 2008-C63174 [19] WPIDS
DOC. NO. CPI: C2008-079637 [19]
TITLE: Treating inflammation involves determining the level of heme oxygenase-1 activity in response to a stimulus; and administering anti-inflammatory agent, and composition having carbon monoxide, bilirubin, heme oxygenase-1, and/or apoferritin
DERWENT CLASS: B05
INVENTOR: BACH F H; HASCHEMI A; OTTERBEIN L E
PATENT ASSIGNEE: (BETH-N) BETH ISRAEL DEACONESS MEDICAL CENT
COUNTRY COUNT: 120

PATENT INFO ABBR.:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
WO 2008008513	A2 20080117	(200819)*	EN	49[4]	
WO 2008008513	A3 20080306	(200819)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2008008513	A2	WO 2007-US16032	20070712

PRIORITY APPLN. INFO: US 2006-830480P 20060713

L6 ANSWER 2 OF 12 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Use of heme oxygenase-1 and heme degradation products for e.g. reducing inflammation, organ transplantation and treating e.g. cellular proliferative disorder
AN 2003-903222 [82] WPIDS
AB WO 2003088748 A1 UPAB: 20060121

NOVELTY - Reducing (M1) inflammation involves:

(1) administration of at least one treatment selected from inducing ferritin;

(2) expressing ferritin; and

(3) administering a pharmaceutical composition (C1) comprising heme oxygenase-1 (HO-1), bilirubin, biliverdin, ferritin, iron, desferoxamine, salicylaldehyde isonicotinoyl hydrazone, iron dextran, or apoferritin.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) A method (M2) of transplanting an organ by three different ways (M2a, M2b, M2c). (M2a) involves (ia) administration of at least one of the treatments to a donor to enhance survival or function of the organ after the transplantation, (ib) obtaining an organ from the donor, and (ic) transplanting the organ into a recipient. (M2b) involves (iia) administering to an organ of a donor ex vivo at least one of the treatments, and (iib) transplanting the organ into a recipient. (M2c) involves (iiia) transplanting an organ from a donor into a recipient, and (iiib) administering at least one of the treatments to the recipient; and

(2) A method (M3) of performing angioplasty and vascular surgery involving performing angioplasty and vascular surgery, respectively, and administering at least one of the treatments.

ACTIVITY - Anti-inflammatory; Antiulcer; Antiasthmatic; Tranquilizer; Respiratory-Gen.; Thrombolytic; Hypotensive; Cardiovascular Gen.; Cerebroprotective; Antiarteriosclerotic; Vasotropic; Cardiant; Nephrotropic; Hepatotropic; Virucide; Gastrointestinal Gen.; Antirheumatic; Antiarthritic; Vulnerary; Neuroprotective; Nootropic; Antiparkinsonian; Immunosuppressive; Antibacterial; Uropathic; Cytostatic; Gynecological.

The anti-inflammatory efficacy of biliverdin was evaluated in an animal model of endotoxic shock. Administration of endotoxin in male Sprague-Dawley rats resulted in lung inflammation, neutrophil accumulation, and increased levels of tumor necrosis factor-alpha (TNF-alpha) in the serum. The rats were administered with biliverdin (50 micromol/kg) 17 hours prior to, and 8 hours after endotoxin administration. Serum level of TNF-alpha was measured by ELISA kits, and total cell counts was determined by differential analysis. The results showed that biliverdin reduced levels of TNF-alpha; levels of neutrophils and protein accumulation in the airspace; and also increased the levels of anti-inflammatory cytokine IL-10.

MECHANISM OF ACTION - None given.

USE - The treatment is useful for reducing and treating inflammation of the heart, lung, liver, spleen, brain skin and kidney; inflammatory condition (e.g. amoebic dysentery, bacillary dysentery, schistosomiasis, campylobacter enterocolitis, yersinia enterocolitis, enterobius vermicularis, radiation enterocolitis, ischaemic colitis, eosinophilic gastroenteritis, ulcerative colitis, indeterminate colitis, and Crohn's disease) localized in the gastrointestinal tract); asthma; adult respiratory distress syndrome; interstitial pulmonary fibrosis; pulmonary emboli; chronic obstructive pulmonary disease; primary pulmonary hypertension; chronic pulmonary emphysema; congestive heart failure; peripheral vascular disease; stroke; atherosclerosis; ischemia-reperfusion injury; heart attacks; glomerulonephritis; nephrotic disorders; infection of the genitourinary tract; viral and toxic hepatitis; cirrhosis; ileus; necrotizing enterocolitis; specific and

non-specific inflammatory bowel disease; rheumatoid arthritis, deficient wound healing, Alzheimer's disease, Parkinson's disease, graft versus host disease, and hemorrhagic, septic, or anaphylactic shock; cellular proliferative and differentiative disorder. For reducing the effects of ischemia. For transplanting organs and performing angioplasty or vascular surgery (all claimed). Also for treating other autoimmune diseases and reproductive disorders.

ADVANTAGE - The heme-oxygenase-1 and the heme degradation products attenuate inflammation and suppress the damage associated with ischemia.

ACCESSION NUMBER: 2003-903222 [82] WPIDS
DOC. NO. CPI: C2003-256695 [82]
DOC. NO. NON-CPI: N2003-721263 [82]
TITLE: Use of heme oxygenase-1 and heme degradation products for e.g. reducing inflammation, organ transplantation and treating e.g. cellular proliferative disorder
DERWENT CLASS: B04; B05; S03
INVENTOR: BACH F H; BERBERAT P O; ROBSON S C
PATENT ASSIGNEE: (BETH-N) BETH ISRAEL DEACONESS MEDICAL CENT; (BACH-I) BACH F H; (BERB-I) BERBERAT P O; (ROBS-I) ROBSON S C
COUNTRY COUNT: 102

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003088748	A1	20031030	(200382)*	EN	56[27]	
AU 2003226366	A1	20031103	(200438)	EN		
EP 1499186	A1	20050126	(200508)	EN		
JP 2005522521	W	20050728	(200549)	JA	59	
US 20060003922	A1	20060105	(200603)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003088748	A1	WO 2003-US11411	20030415
AU 2003226366	A1	AU 2003-226366	20030415
EP 1499186	A1	EP 2003-746978	20030415
JP 2005522521	W	JP 2003-585506	20030415
EP 1499186	A1	WO 2003-US11411	20030415
JP 2005522521	W	WO 2003-US11411	20030415
US 20060003922	A1 Provisional	US 2002-372762P	20020415
US 20060003922	A1	WO 2003-US11411	20030415
US 20060003922	A1	US 2005-511612	20050805

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003226366	A1 Based on	WO 2003088748 A
EP 1499186	A1 Based on	WO 2003088748 A
JP 2005522521	W Based on	WO 2003088748 A

PRIORITY APPLN. INFO: US 2002-372762P 20020415
US 2005-511612 20050805

L6 ANSWER 3 OF 12 USPATFULL on STN
TI Carbon monoxide improves outcomes in tissue and organ transplants and suppresses apoptosis

AB The present invention features methods for transplanting organs, tissues and individual cells. Also featured are methods for maintaining cells in vitro and for enhancing survival and/or function of cells following transplantation. The methods include the administration of carbon monoxide in an amount sufficient to enhance cell survival and/or function.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2007:230812 USPATFULL
TITLE:	Carbon monoxide improves outcomes in tissue and organ transplants and suppresses apoptosis
INVENTOR(S):	Bach, Fritz H., Manchester-by-the Sea, MA, UNITED STATES Otterbein, Leo E., New Kensington, PA, UNITED STATES Soares, Miguel P., Boston, MA, UNITED STATES Tobiasch, Edda M., Bonn, GERMANY, FEDERAL REPUBLIC OF Gose, Jeanne, Manchester-by-the Sea, MA, UNITED STATES
PATENT ASSIGNEE(S):	Beth Israel Deaconess Medical Center, Inc., a Massachusetts corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070202083	A1	20070830
APPLICATION INFO.:	US 2006-401722	A1	20060410 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-177930, filed on 21 Jun 2002, GRANTED, Pat. No. US 7238469		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-300289P	20010621 (60)
	US 2001-334340P	20011129 (60)
	US 2001-337974P	20011207 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	FISH & RICHARDSON PC, P.O. BOX 1022, MINNEAPOLIS, MN, 55440-1022, US
NUMBER OF CLAIMS:	29
EXEMPLARY CLAIM:	1-47
NUMBER OF DRAWINGS:	31 Drawing Page(s)
LINE COUNT:	3134

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 12 USPATFULL on STN
TI Spinner preparation machine and cavity resonator
AB The present invention relates to the treatment of disorders using heme oxygenase-1 and heme degradation products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2006:4464 USPATFULL
TITLE:	Spinner preparation machine and cavity resonator
INVENTOR(S):	Bach, Fritz H., Manchester-by-the-sea, MA, UNITED STATES Berberat, Pascal O., Heidelberg, GERMANY, FEDERAL REPUBLIC OF Robson, Simon C., Weston, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20060003922	A1	20060105
APPLICATION INFO.:	US 2003-511612	A1	20030415 (10)
	WO 2003-US11411		20030415

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-372762P	20020415 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	FISH & RICHARDSON PC, P.O. BOX 1022, MINNEAPOLIS, MN, 55440-1022, US	
NUMBER OF CLAIMS:	58	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	27 Drawing Page(s)	
LINE COUNT:	3083	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 5 OF 12 USPATFULL on STN

TI Methods of treating angiogenesis, tumor growth, and metastasis

AB The present invention relates to a method of treating cancer or unwanted angiogenesis in a patient, which includes administering a pharmaceutical composition that includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2004:326952 USPATFULL
TITLE:	Methods of treating angiogenesis, tumor growth, and metastasis
INVENTOR(S):	Otterbein, Leo E., New Kensington, PA, UNITED STATES Choi, Augustine M. K., Pittsburgh, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040258772	A1	20041223
APPLICATION INFO.:	US 2003-455564	A1	20030605 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-386561P	20020605 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110	
NUMBER OF CLAIMS:	71	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Page(s)	
LINE COUNT:	1303	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 12 USPATFULL on STN

TI Treatment for hemorrhagic shock

AB The present invention relates to methods and compositions of treating patients suffering from, or at risk for, hemorrhagic shock. The treatment includes administering to the patient a pharmaceutical composition that includes carbon monoxide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2004:291849 USPATFULL
TITLE:	Treatment for hemorrhagic shock
INVENTOR(S):	Billiar, Timothy R., Nevillewood, PA, UNITED STATES Choi, Augustine M.K., Pittsburgh, PA, UNITED STATES McCloskey, Carol A., Pittsburgh, PA, UNITED STATES Otterbein, Leo E., New Kensington, PA, UNITED STATES Zuckerbraun, Brian, Pittsburgh, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040228930	A1	20041118
APPLICATION INFO.:	US 2003-676280	A1	20030930 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-424804P	20021107 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 54
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 1154
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 7 OF 12 USPATFULL on STN
TI Pharmaceutical use of nitric oxide, heme oxygenase-1 and products of heme degradation
AB The present invention relates to the treatment of disorders using nitric oxide (NO), heme oxygenase-1 (HO-1) and heme degradation products such as carbon monoxide (CO), biliverdin, bilirubin and iron.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2004:171542 USPATFULL
TITLE: Pharmaceutical use of nitric oxide, heme oxygenase-1 and products of heme degradation
INVENTOR(S): Bach, Fritz H., Manchester-by-the-sea, MA, UNITED STATES
Otterbein, Leo E., New Kensington, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040131703	A1	20040708
APPLICATION INFO.:	US 2003-600182	A1	20030620 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-390457P	20020621 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 2300
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 8 OF 12 USPATFULL on STN
TI Methods of treating hepatitis
AB The present invention relates to a method of treating hepatitis in a patient, which includes administering a pharmaceutical composition that includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2004:69639 USPATFULL
TITLE: Methods of treating hepatitis

INVENTOR(S): Otterbein, Leo E., New Kensington, PA, UNITED STATES
Choi, Augustine M. K., Pittsburgh, PA, UNITED STATES
Zuckerbraun, Brian, Pittsburgh, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040052866	A1	20040318
APPLICATION INFO.:	US 2003-439632	A1	20030516 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-381527P	20020517 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Page(s)
LINE COUNT: 1503
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 9 OF 12 USPATFULL on STN
TI Methods of treating necrotizing enterocolitis
AB The present invention relates to a method of treating necrotizing enterocolitis in a patient, which includes administering a pharmaceutical composition that includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2004:7134 USPATFULL
TITLE: Methods of treating necrotizing enterocolitis
INVENTOR(S): Otterbein, Leo E., New Kensington, PA, UNITED STATES
Zuckerbraun, Brian, Pittsburgh, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040005367	A1	20040108
APPLICATION INFO.:	US 2003-413817	A1	20030415 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-372599P	20020415 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 1097
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 10 OF 12 USPATFULL on STN
TI Methods of treating ileus
AB The present invention relates to a method of treating ileus in a patient, which includes administering a pharmaceutical composition that includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:311902 USPATFULL
TITLE: Methods of treating ileus

INVENTOR(S): Otterbein, Leo E., New Kensington, PA, UNITED STATES
Choi, Augustine M. K., Pittsburgh, PA, UNITED STATES
Moore, Beverley A., Pittsburgh, PA, UNITED STATES
Bauer, Anthony J., Pittsburgh, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20030219497	A1	20031127
APPLICATION INFO.:	US 2003-371666	A1	20030221 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-372652P	20020415 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Page(s)
LINE COUNT: 2256
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 11 OF 12 USPATFULL on STN
TI Methods of treating vascular disease
AB The present invention relates to a method of treating patients suffering from, or at risk for, intimal hyperplasia and/or arteriosclerosis. The treatment includes administering a pharmaceutical composition that includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2003:311901 USPATFULL
TITLE: Methods of treating vascular disease
INVENTOR(S): Otterbein, Leo E., New Kensington, PA, UNITED STATES
Choi, Augustine M. K., Pittsburgh, PA, UNITED STATES
Bach, Fritz H., Mancester-by-the-sea, MA, UNITED STATES
Zuckerbraun, Brian, Pittsburgh, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20030219496	A1	20031127
	US 7364757	B2	20080429
APPLICATION INFO.:	US 2003-367277	A1	20030213 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-356718P	20020213 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 49
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Page(s)
LINE COUNT: 1841
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 12 OF 12 USPATFULL on STN
TI Carbon monoxide improves outcomes in tissue and organ transplants and suppresses apoptosis
AB The present invention features methods for transplanting organs, tissues

and individual cells. Also featured are methods for maintaining cells in vitro and for enhancing survival and/or function of cells following transplantation. The methods include the administration of carbon monoxide in an amount sufficient to enhance cell survival and/or function.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2003:57074 USPATFULL		
TITLE:	Carbon monoxide improves outcomes in tissue and organ transplants and suppresses apoptosis		
INVENTOR(S):	Bach, Fritz H., Manchester-by-the-Sea, MA, UNITED STATES Otterbein, Leo E., New Kensington, PA, UNITED STATES Soares, Miguel P., Boston, MA, UNITED STATES Tobiasch, Edda M., Bonn, GERMANY, FEDERAL REPUBLIC OF Gose, Jeanne, Manchester-by-the-Sea, MA, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20030039638	A1	20030227
	US 7238469	B2	20070703
APPLICATION INFO.:	US 2002-177930	A1	20020621 (10)
	NUMBER	DATE	
PRIORITY INFORMATION:	US 2001-300289P	20010621 (60)	
	US 2001-334340P	20011129 (60)	
	US 2001-337974P	20011207 (60)	
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110		
NUMBER OF CLAIMS:	149		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	31 Drawing Page(s)		
LINE COUNT:	3473		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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     (FILE 'HOME' ENTERED AT 18:15:40 ON 06 JUL 2008)

     FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, HCAPLUS' ENTERED AT 18:15:59 ON
     06 JUL 2008
L1          3209 S (INFLAMMATION AND FERRITIN)
L2            72 S L1 AND BILIVERDIN
L3            31 S L2 AND DOSAGE
L4            19 S L3 AND (DEXTRAN)
L5            12 S L3 AND (DESFEROXAMINE)
L6            12 S L5 AND L4

=> s l6 and (colitis)
L7             4 L6 AND (COLITIS)

=> d l7 ti abs ibib tot

L7   ANSWER 1 OF 4  WPIDS COPYRIGHT 2008       THOMSON REUTERS on STN
TI   Use of heme oxygenase-1 and heme degradation products for e.g. reducing
     inflammation, organ transplantation and treating e.g. cellular
     proliferative disorder
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AN 2003-903222 [82] WPIDS
AB WO 2003088748 A1 UPAB: 20060121
NOVELTY - Reducing (M1) inflammation involves:
(1) administration of at least one treatment selected from inducing ferritin;
(2) expressing ferritin; and
(3) administering a pharmaceutical composition (C1) comprising heme oxygenase-1 (HO-1), bilirubin, biliverdin, ferritin, iron, desferoxamine, salicylaldehyde isonicotinoyl hydrazone, iron dextran, or apoferritin.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) A method (M2) of transplanting an organ by three different ways (M2a, M2b, M2c). (M2a) involves (ia) administration of at least one of the treatments to a donor to enhance survival or function of the organ after the transplantation, (ib) obtaining an organ from the donor, and (ic) transplanting the organ into a recipient. (M2b) involves (iia) administering to an organ of a donor ex vivo at least one of the treatments, and (iib) transplanting the organ into a recipient. (M2c) involves (iiia) transplanting an organ from a donor into a recipient, and (iiib) administering at least one of the treatments to the recipient; and
(2) A method (M3) of performing angioplasty and vascular surgery involving performing angioplasty and vascular surgery, respectively, and administering at least one of the treatments.
ACTIVITY - Anti-inflammatory; Antiulcer; Antiasthmatic; Tranquilizer; Respiratory-Gen.; Thrombolytic; Hypotensive; Cardiovascular Gen.; Cerebroprotective; Antiarteriosclerotic; Vasotropic; Cardiant; Nephrotropic; Hepatotropic; Virucide; Gastrointestinal Gen.; Antirheumatic; Antiarthritic; Vulnerary; Neuroprotective; Nootropic; Antiparkinsonian; Immunosuppressive; Antibacterial; Uropathic; Cytostatic; Gynecological.
The anti-inflammatory efficacy of biliverdin was evaluated in an animal model of endotoxic shock. Administration of endotoxin in male Sprague-Dawley rats resulted in lung inflammation, neutrophil accumulation, and increased levels of tumor necrosis factor-alpha (TNF-alpha) in the serum. The rats were administered with biliverdin (50 micromol/kg) 17 hours prior to, and 8 hours after endotoxin administration. Serum level of TNF-alpha was measured by ELISA kits, and total cell counts was determined by differential analysis. The results showed that biliverdin reduced levels of TNF-alpha; levels of neutrophils and protein accumulation in the airspace; and also increased the levels of anti-inflammatory cytokine IL-10.
MECHANISM OF ACTION - None given.
USE - The treatment is useful for reducing and treating inflammation of the heart, lung, liver, spleen, brain skin and kidney; inflammatory condition (e.g. amoebic dysentery, bacillary dysentery, schistosomiasis, campylobacter enterocolitis, yersinia enterocolitis, enterobius vermicularis, radiation enterocolitis, ischaemic colitis, eosinophilic gastroenteritis, ulcerative colitis , indeterminate colitis, and Crohn's disease) localized in the gastrointestinal tract); asthma; adult respiratory distress syndrome; interstitial pulmonary fibrosis; pulmonary emboli; chronic obstructive pulmonary disease; primary pulmonary hypertension; chronic pulmonary emphysema; congestive heart failure; peripheral vascular disease; stroke; atherosclerosis; ischemia-reperfusion injury; heart attacks; glomerulonephritis; nephrotic disorders; infection of the genitourinary tract; viral and toxic hepatitis; cirrhosis; ileus; necrotizing enterocolitis; specific and non-specific inflammatory bowel disease; rheumatoid arthritis, deficient wound healing, Alzheimer's disease, Parkinson's disease, graft versus host disease, and hemorrhagic, septic, or anaphylactic shock; cellular proliferative and differentiative

disorder. For reducing the effects of ischemia. For transplanting organs and performing angioplasty or vascular surgery (all claimed). Also for treating other autoimmune diseases and reproductive disorders.

ADVANTAGE - The heme-oxygenase-1 and the heme degradation products attenuate inflammation and suppress the damage associated with ischemia.

ACCESSION NUMBER: 2003-903222 [82] WPIDS
DOC. NO. CPI: C2003-256695 [82]
DOC. NO. NON-CPI: N2003-721263 [82]
TITLE: Use of heme oxygenase-1 and heme degradation products for e.g. reducing inflammation, organ transplantation and treating e.g. cellular proliferative disorder
DERWENT CLASS: B04; B05; S03
INVENTOR: BACH F H; BERBERAT P O; ROBSON S C
PATENT ASSIGNEE: (BETH-N) BETH ISRAEL DEACONESS MEDICAL CENT; (BACH-I) BACH F H; (BERB-I) BERBERAT P O; (ROBS-I) ROBSON S C
COUNTRY COUNT: 102

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003088748	A1	20031030	(200382)*	EN	56[27]	
AU 2003226366	A1	20031103	(200438)	EN		
EP 1499186	A1	20050126	(200508)	EN		
JP 2005522521	W	20050728	(200549)	JA	59	
US 20060003922	A1	20060105	(200603)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003088748	A1	WO 2003-US11411	20030415
AU 2003226366	A1	AU 2003-226366	20030415
EP 1499186	A1	EP 2003-746978	20030415
JP 2005522521	W	JP 2003-585506	20030415
EP 1499186	A1	WO 2003-US11411	20030415
JP 2005522521	W	WO 2003-US11411	20030415
US 20060003922	A1 Provisional	US 2002-372762P	20020415
US 20060003922	A1	WO 2003-US11411	20030415
US 20060003922	A1	US 2005-511612	20050805

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003226366	A1 Based on	WO 2003088748 A
EP 1499186	A1 Based on	WO 2003088748 A
JP 2005522521	W Based on	WO 2003088748 A

PRIORITY APPLN. INFO: US 2002-372762P 20020415
US 2005-511612 20050805

L7 ANSWER 2 OF 4 USPATFULL on STN
TI Spinner preparation machine and cavity resonator
AB The present invention relates to the treatment of disorders using heme oxygenase-1 and heme degradation products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2006:4464 USPATFULL

TITLE: Spinner preparation machine and cavity resonator
INVENTOR(S): Bach, Fritz H., Manchester-by-the-sea, MA, UNITED STATES
Berberat, Pascal O., Heidelberg, GERMANY, FEDERAL REPUBLIC OF
Robson, Simon C., Weston, MA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20060003922	A1	20060105	
APPLICATION INFO.:	US 2003-511612	A1	20030415	(10)
	WO 2003-US11411		20030415	
			20050805	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-372762P	20020415 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, P.O. BOX 1022, MINNEAPOLIS, MN, 55440-1022, US
NUMBER OF CLAIMS: 58
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 27 Drawing Page(s)
LINE COUNT: 3083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 3 OF 4 USPATFULL on STN
TI Pharmaceutical use of nitric oxide, heme oxygenase-1 and products of heme degradation
AB The present invention relates to the treatment of disorders using nitric oxide (NO), heme oxygenase-1 (HO-1) and heme degradation products such as carbon monoxide (CO), biliverdin, bilirubin and iron.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2004:171542 USPATFULL
TITLE: Pharmaceutical use of nitric oxide, heme oxygenase-1 and products of heme degradation
INVENTOR(S): Bach, Fritz H., Manchester-by-the-sea, MA, UNITED STATES
Otterbein, Leo E., New Kensington, PA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20040131703	A1	20040708	
APPLICATION INFO.:	US 2003-600182	A1	20030620	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-390457P	20020621 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 2300
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 4 OF 4 USPATFULL on STN

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TI     Methods of treating ileus
AB     The present invention relates to a method of treating ileus in a
       patient, which includes administering a pharmaceutical composition that
       includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER:        2003:311902  USPATFULL
TITLE:                   Methods of treating ileus
INVENTOR(S):             Otterbein, Leo E., New Kensington, PA, UNITED STATES
                         Choi, Augustine M. K., Pittsburgh, PA, UNITED STATES
                         Moore, Beverley A., Pittsburgh, PA, UNITED STATES
                         Bauer, Anthony J., Pittsburgh, PA, UNITED STATES

                              NUMBER        KIND    DATE
                              --------------- ------ --------
PATENT INFORMATION:      US 20030219497      A1   20031127
APPLICATION INFO.:       US 2003-371666      A1   20030221  (10)

                              NUMBER         DATE
                              ---------------- --------
PRIORITY INFORMATION:    US 2002-372652P    20020415 (60)
DOCUMENT TYPE:           Utility
FILE SEGMENT:            APPLICATION
LEGAL REPRESENTATIVE:    FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA,
                         02110
NUMBER OF CLAIMS:        24
EXEMPLARY CLAIM:         1
NUMBER OF DRAWINGS:      16 Drawing Page(s)
LINE COUNT:              2256
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


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     (FILE 'HOME' ENTERED AT 18:15:40 ON 06 JUL 2008)

     FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, HCAPLUS' ENTERED AT 18:15:59 ON
     06 JUL 2008
L1          3209 S (INFLAMMATION AND FERRITIN)
L2            72 S L1 AND BILIVERDIN
L3            31 S L2 AND DOSAGE
L4            19 S L3 AND (DEXTRAN)
L5            12 S L3 AND (DESFEROXAMINE)
L6            12 S L5 AND L4
L7             4 S L6 AND (COLITIS)

=> s l6 and (atherosclerosis)
L8            6 L6 AND (ATHEROSCLEROSIS)

=> d l8 ti abs ibib tot

L8   ANSWER 1 OF 6  WPIDS COPYRIGHT 2008       THOMSON REUTERS on STN
TI   Treating inflammation involves determining the level of heme
     oxygenase-1 activity in response to a stimulus; and administering
     anti-inflammatory agent, and composition having carbon monoxide,
     bilirubin, heme oxygenase-1, and/or apoferritin
AN   2008-C63174 [19]    WPIDS
AB   WO 2008008513 A2   UPAB: 20080318
      NOVELTY - Treating inflammation involves determining the
     patient's level of heme oxygenase-1 (HO-1) activity, expression, or
     induction in response to a stimulus, or determining an allele of a
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polymorphism in HO-1 promoter; and administering first pharmaceutical composition comprising an anti-inflammatory agent; and a second pharmaceutical composition comprising carbon monoxide, HO-1, bilirubin, iron dextran, apoferritin (if HO-1 activity, expression or induction in response to stimulus is determined to be reduced compared to reference standard, or if the HO-1 promoter comprises specified allele).

DETAILED DESCRIPTION - Treating (M1) inflammation involves determining the patient's level of heme oxygenase-1 (HO-1) activity, expression, or induction in response to a stimulus, or determining an allele of a polymorphism in HO-1 promoter; and administering first pharmaceutical composition comprising an anti-inflammatory agent; and a second pharmaceutical composition comprising carbon monoxide (CO), a CO-releasing compound, HO-1, bilirubin, biliverdin, ferritin, iron, desferoxamine, salicylaldehyde isonicotinoyl hydrazone, iron dextran, and/or apoferritin (if HO-1 activity, expression or induction in response to a stimulus is determined to be reduced compared to a reference standard, or if the HO-1 promoter comprises a specified allele). An INDEPENDENT CLAIM is included for potentiating (M2) the response of a patient to a pharmaceutical agent, involving identifying a first pharmaceutical agent that is potentiated by a second treatment which induces HO-1 or apoferritin or increases the level of expression of HO-1 or apoferritin in the patient by administering a second pharmaceutical composition comprising HO-1, CO, CO-releasing compound, bilirubin, biliverdin , ferritin, iron, desferoxamine, salicylaldehyde isonicotinoyl hydrazone, iron dextran, and/or apoferritin; administering the first pharmaceutical agent; and allowing the second treatment. PHARMACEUTICALS - Preferred Components: The anti-inflammatory agent is selected from statins, adenosine, cyclooxygenase inhibitors, probucol, steroids, or prostaglandins. In method (M2) the first pharmaceutical agent is immunosuppresant.

ACTIVITY - Antiinflammatory; Antiasthmatic; Respiratory-Gen.; Hypotensive; Cardiovascular-Gen.; Vasotropic; Cerebroprotective; Antiarteriosclerotic; Cardiant; Nephrotropic; Uropathic; Hepatotropic; Virucide; Antiangiogenic; Gastrointestinal-Gen.; Antiarthritic; Antirheumatic; Neuroprotective; Dermatological; Immunosuppressive; Cytostatic; Vulnerary; Nootropic; Antiparkinsonian; Hemostatic; Antibacterial; Analgesic; Gynecological; Endocrine-Gen.; Anti-HIV; Antiallergic. The efficacy of heme oxygenase-1 was tested for anti-inflammatory effect. Mouse macrophage cell lines were stably transfected with either heme oxygenase-1 (HO-I) or empty plasmid (NEO). The resulting cell lines were treated with adenosine (100 muM) or 5'-(N-ethylcarboxamido) adenosine (NECA) (10 muM) 30 minutes prior to stimulation with lipopolysaccharide (LPS) (1 ng/ml). After 4 hours, the supernatant of each group was analyzed for tumor necrosis factor (TNF)-I. Overexpression of HO-1 gave approximately1.5 to 2-fold greater inhibition of TNF-I secretion compared to the vector control. Thus overexpression of HO-1 augmented the effect of the anti-inflammatory agents adenosine and NECA on TNF-I, produced by lipopolysaccharide (LPS) activated macrophages.

MECHANISM OF ACTION - Heme oxygenase 1 stimulator; Apoferritin stimulator. No biological data given.

USE - For treating inflammation (particularly associated with asthma, adult respiratory distress syndrome, interstitial pulmonary fibrosis, pulmonary emboli, chronic obstructive pulmonary disease, primary pulmonary hypertension, chronic pulmonary emphysema, congestive heart failure, peripheral vascular disease, stroke, atherosclerosis, ischemia-reperfusion injury, heart attack, glomerulonephritis, conditions involving inflammation of the kidney, infection of the genitourinary tract, viral hepatitis, toxic hepatitis, cirrhosis, ileus, necrotizing enterocolitis, inflammatory bowel disease, rheumatoid arthritis, multiple sclerosis, systemic lupus erythematosus, cancer,

wounds, Alzheimer's disease, Parkinson's disease, graft versus host disease, and hemorrhagic, septic, or anaphylactic shock); inflammation of the heart, respiratory tract, liver, spleen, brain, joint, skin, gastrointestinal tract and/or kidney (claimed), pain, reproductive disorders, e.g. impotence, premature uterine contractions, premature deliveries and menstrual cramps, amoebic dysentery, pneumonia (bacterial or viral), inflammatory states due to immunodeficiency e.g. due to infection with HIV; hypersensitivities; and for treating unwanted angiogenesis.

ADVANTAGE - The second composition induces HO-1 or increasing the level of expression of HO-1; induces apoferritin or increases the level of expression of apoferritin in the patient, and effectively treat inflammation.

ACCESSION NUMBER: 2008-C63174 [19] WPIDS
DOC. NO. CPI: C2008-079637 [19]
TITLE: Treating inflammation involves determining the level of heme oxygenase-1 activity in response to a stimulus; and administering anti-inflammatory agent, and composition having carbon monoxide, bilirubin, heme oxygenase-1, and/or apoferritin
DERWENT CLASS: B05
INVENTOR: BACH F H; HASCHEMI A; OTTERBEIN L E
PATENT ASSIGNEE: (BETH-N) BETH ISRAEL DEACONESS MEDICAL CENT
COUNTRY COUNT: 120

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2008008513	A2	20080117	(200819)*	EN	49[4]	
WO 2008008513	A3	20080306	(200819)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2008008513	A2	WO 2007-US16032	20070712

PRIORITY APPLN. INFO: US 2006-830480P 20060713

L8 ANSWER 2 OF 6 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Use of heme oxygenase-1 and heme degradation products for e.g. reducing inflammation, organ transplantation and treating e.g. cellular proliferative disorder
AN 2003-903222 [82] WPIDS
AB WO 2003088748 A1 UPAB: 20060121

NOVELTY - Reducing (M1) inflammation involves:

(1) administration of at least one treatment selected from inducing ferritin;

(2) expressing ferritin; and

(3) administering a pharmaceutical composition (C1) comprising heme oxygenase-1 (HO-1), bilirubin, biliverdin, ferritin, iron, desferoxamine, salicylaldehyde isonicotinoyl hydrazone, iron dextran, or apoferritin.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) A method (M2) of transplanting an organ by three different ways (M2a, M2b, M2c). (M2a) involves (ia) administration of at least one of the treatments to a donor to enhance survival or function of the organ after the transplantation, (ib) obtaining an organ from the donor, and (ic) transplanting the organ into a recipient. (M2b) involves (iia) administering to an organ of a donor ex vivo at least one of the

treatments, and (iib) transplanting the organ into a recipient. (M2c) involves (iiia) transplanting an organ from a donor into a recipient, and (iiib) administering at least one of the treatments to the recipient; and

(2) A method (M3) of performing angioplasty and vascular surgery involving performing angioplasty and vascular surgery, respectively, and administering at least one of the treatments.

ACTIVITY - Anti-inflammatory; Antiulcer; Antiasthmatic; Tranquilizer; Respiratory-Gen.; Thrombolytic; Hypotensive; Cardiovascular Gen.; Cerebroprotective; Antiarteriosclerotic; Vasotropic; Cardiant; Nephrotropic; Hepatotropic; Virucide; Gastrointestinal Gen.; Antirheumatic; Antiarthritic; Vulnerary; Neuroprotective; Nootropic; Antiparkinsonian; Immunosuppressive; Antibacterial; Uropathic; Cytostatic; Gynecological.

The anti-inflammatory efficacy of biliverdin was evaluated in an animal model of endotoxic shock. Administration of endotoxin in male Sprague-Dawley rats resulted in lung inflammation, neutrophil accumulation, and increased levels of tumor necrosis factor-alpha (TNF-alpha) in the serum. The rats were administered with biliverdin (50 micromol/kg) 17 hours prior to, and 8 hours after endotoxin administration. Serum level of TNF-alpha was measured by ELISA kits, and total cell counts was determined by differential analysis. The results showed that biliverdin reduced levels of TNF-alpha; levels of neutrophils and protein accumulation in the airspace; and also increased the levels of anti-inflammatory cytokine IL-10.

MECHANISM OF ACTION - None given.

USE - The treatment is useful for reducing and treating inflammation of the heart, lung, liver, spleen, brain skin and kidney; inflammatory condition (e.g. amoebic dysentery, bacillary dysentery, schistosomiasis, campylobacter enterocolitis, yersinia enterocolitis, enterobius vermicularis, radiation enterocolitis, ischaemic colitis, eosinophilic gastroenteritis, ulcerative colitis, indeterminate colitis, and Crohn's disease) localized in the gastrointestinal tract); asthma; adult respiratory distress syndrome; interstitial pulmonary fibrosis; pulmonary emboli; chronic obstructive pulmonary disease; primary pulmonary hypertension; chronic pulmonary emphysema; congestive heart failure; peripheral vascular disease; stroke; atherosclerosis; ischemia-reperfusion injury; heart attacks; glomerulonephritis; nephrotic disorders; infection of the genitourinary tract; viral and toxic hepatitis; cirrhosis; ileus; necrotizing enterocolitis; specific and non-specific inflammatory bowel disease; rheumatoid arthritis, deficient wound healing, Alzheimer's disease, Parkinson's disease, graft versus host disease, and hemorrhagic, septic, or anaphylactic shock; cellular proliferative and differentiative disorder. For reducing the effects of ischemia. For transplanting organs and performing angioplasty or vascular surgery (all claimed). Also for treating other autoimmune diseases and reproductive disorders.

ADVANTAGE - The heme-oxygenase-1 and the heme degradation products attenuate inflammation and suppress the damage associated with ischemia.

ACCESSION NUMBER:	2003-903222 [82] WPIDS
DOC. NO. CPI:	C2003-256695 [82]
DOC. NO. NON-CPI:	N2003-721263 [82]
TITLE:	Use of heme oxygenase-1 and heme degradation products for e.g. reducing inflammation, organ transplantation and treating e.g. cellular proliferative disorder
DERWENT CLASS:	B04; B05; S03
INVENTOR:	BACH F H; BERBERAT P O; ROBSON S C
PATENT ASSIGNEE:	(BETH-N) BETH ISRAEL DEACONESS MEDICAL CENT; (BACH-I) BACH F H; (BERB-I) BERBERAT P O; (ROBS-I) ROBSON S C

COUNTRY COUNT: 102

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003088748	A1	20031030	(200382)*	EN	56	[27]
AU 2003226366	A1	20031103	(200438)	EN		
EP 1499186	A1	20050126	(200508)	EN		
JP 2005522521	W	20050728	(200549)	JA	59	
US 20060003922	A1	20060105	(200603)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003088748	A1	WO 2003-US11411	20030415
AU 2003226366	A1	AU 2003-226366	20030415
EP 1499186	A1	EP 2003-746978	20030415
JP 2005522521	W	JP 2003-585506	20030415
EP 1499186	A1	WO 2003-US11411	20030415
JP 2005522521	W	WO 2003-US11411	20030415
US 20060003922	A1 Provisional	US 2002-372762P	20020415
US 20060003922	A1	WO 2003-US11411	20030415
US 20060003922	A1	US 2005-511612	20050805

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003226366	A1 Based on	WO 2003088748 A
EP 1499186	A1 Based on	WO 2003088748 A
JP 2005522521	W Based on	WO 2003088748 A

PRIORITY APPLN. INFO: US 2002-372762P 20020415
US 2005-511612 20050805

L8 ANSWER 3 OF 6 USPATFULL on STN
TI Spinner preparation machine and cavity resonator
AB The present invention relates to the treatment of disorders using heme oxygenase-1 and heme degradation products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2006:4464 USPATFULL
TITLE: Spinner preparation machine and cavity resonator
INVENTOR(S): Bach, Fritz H., Manchester-by-the-sea, MA, UNITED STATES
Berberat, Pascal O., Heidelberg, GERMANY, FEDERAL REPUBLIC OF
Robson, Simon C., Weston, MA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20060003922	A1	20060105	
APPLICATION INFO.:	US 2003-511612	A1	20030415	(10)
	WO 2003-US11411		20030415	
			20050805	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-372762P	20020415 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, P.O. BOX 1022, MINNEAPOLIS, MN, 55440-1022, US
NUMBER OF CLAIMS: 58
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 27 Drawing Page(s)
LINE COUNT: 3083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 6 USPATFULL on STN
TI Methods of treating angiogenesis, tumor growth, and metastasis
AB The present invention relates to a method of treating cancer or unwanted angiogenesis in a patient, which includes administering a pharmaceutical composition that includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2004:326952 USPATFULL
TITLE: Methods of treating angiogenesis, tumor growth, and metastasis
INVENTOR(S): Otterbein, Leo E., New Kensington, PA, UNITED STATES
Choi, Augustine M. K., Pittsburgh, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040258772	A1	20041223
APPLICATION INFO.:	US 2003-455564	A1	20030605 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-386561P	20020605 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
NUMBER OF CLAIMS: 71
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Page(s)
LINE COUNT: 1303
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 6 USPATFULL on STN
TI Pharmaceutical use of nitric oxide, heme oxygenase-1 and products of heme degradation
AB The present invention relates to the treatment of disorders using nitric oxide (NO), heme oxygenase-1 (HO-1) and heme degradation products such as carbon monoxide (CO), biliverdin, bilirubin and iron.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2004:171542 USPATFULL
TITLE: Pharmaceutical use of nitric oxide, heme oxygenase-1 and products of heme degradation
INVENTOR(S): Bach, Fritz H., Manchester-by-the-sea, MA, UNITED STATES
Otterbein, Leo E., New Kensington, PA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040131703	A1	20040708
APPLICATION INFO.:	US 2003-600182	A1	20030620 (10)

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                                NUMBER         DATE
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PRIORITY INFORMATION:           US 2002-390457P    20020621 (60)
DOCUMENT TYPE:                  Utility
FILE SEGMENT:                   APPLICATION
LEGAL REPRESENTATIVE:           FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA,
                                02110
NUMBER OF CLAIMS:               23
EXEMPLARY CLAIM:                1
NUMBER OF DRAWINGS:             8 Drawing Page(s)
LINE COUNT:                     2300
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8   ANSWER 6 OF 6  USPATFULL on STN
TI     Methods of treating vascular disease
AB     The present invention relates to a method of treating patients suffering
       from, or at risk for, intimal hyperplasia and/or arteriosclerosis. The
       treatment includes administering a pharmaceutical composition that
       includes carbon monoxide to the patient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER:               2003:311901  USPATFULL
TITLE:                          Methods of treating vascular disease
INVENTOR(S):                    Otterbein, Leo E., New Kensington, PA, UNITED STATES
                                Choi, Augustine M. K., Pittsburgh, PA, UNITED STATES
                                Bach, Fritz H., Mancester-by-the-sea, MA, UNITED STATES
                                Zuckerbraun, Brian, Pittsburgh, PA, UNITED STATES

                                     NUMBER       KIND    DATE
                                     ---------------- ------ --------
PATENT INFORMATION:                  US 20030219496     A1   20031127
                                     US 7364757         B2   20080429
APPLICATION INFO.:                   US 2003-367277     A1   20030213  (10)

                                NUMBER         DATE
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PRIORITY INFORMATION:           US 2002-356718P    20020213 (60)
DOCUMENT TYPE:                  Utility
FILE SEGMENT:                   APPLICATION
LEGAL REPRESENTATIVE:           FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA,
                                02110
NUMBER OF CLAIMS:               49
EXEMPLARY CLAIM:                1
NUMBER OF DRAWINGS:             18 Drawing Page(s)
LINE COUNT:                     1841
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


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     (FILE 'HOME' ENTERED AT 18:15:40 ON 06 JUL 2008)

     FILE 'MEDLINE, BIOSIS, WPIDS, USPATFULL, HCAPLUS' ENTERED AT 18:15:59 ON
     06 JUL 2008
L1          3209 S (INFLAMMATION AND FERRITIN)
L2            72 S L1 AND BILIVERDIN
L3            31 S L2 AND DOSAGE
L4            19 S L3 AND (DEXTRAN)
L5            12 S L3 AND (DESFEROXAMINE)
L6            12 S L5 AND L4
L7             4 S L6 AND (COLITIS)
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L8 6 S L6 AND (ATHEROSCLEROSIS)

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